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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,281	04/19/2002	Hans B. Biserod	PROTEC6.001APC	6078

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EXAMINER

BEHREND, HARVEY E

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,281

Applicant(s)

BISEROD, HANS B. CB

Examiner

Harvey E. Behrend

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/3/03
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on with case is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. Applicants election without traverse in the 11/3/03 response of species N and A, is acknowledged.

Applicant lists claims 1, 2, 6-14 as readable on each of the elected species.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2, 6-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification (e.g. see page 2) states that the penetrator 1 and the rocket motor 10 are interconnected via a release mechanism (which is activated as soon as the rocket motor is burnt out and retardation of the missile occurs). Said page 2 states that this retardation activates the ball retainer ring, which due to the inertia thereof, moves forward against the bias of the spring means to release the locking balls, thus separating the penetrator from the rocket motor.

However, there is no adequate description nor enabling disclosure of how and in what manner, the moment of inertia of the ball retainer ring would be sufficient to overcome all other forces (including for example, the spring force, friction forces, etc.) to

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enable the locking balls to be released and allow separation of the penetrator and rocket motor. It is noted that all components are interconnected (including by means of friction forces) and are traveling together as a unit. See also in this respect, the patents to Boyd et al, Herold and Hansche.

No specific parameters are given and no specific example is provided.

Specific operative embodiments or examples of the invention must be set forth. Examples and description should be of sufficient scope as to justify the scope of the claims. See MPEP 608.01(p).

Note that a disclosure in an application, to be complete, must contain such description and details as to enable any person skilled in the art or science to which the invention pertains to make and use the invention as of its filing date, In re Glass, 181 USPQ 31.

There is no adequate description nor enabling disclosure of what all is meant by and is encompassed by the phrase "one in the forward closure received and movable lock" (see claim 1).

There is no adequate description nor enabling disclosure of what all is meant by and is encompassed by the term "polar boss".

4. Claims 11-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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There is no support in the original disclosure for stating that the spring biasing member (spring 6) engages the locking member (locking ball 3).

Instead, the spring 6 actually engages the ball retainer 2.

There is no support in the original disclosure for the last three lines of claim 12. Note that the rocket motor has no component, etc., that would cause it (the rocket motor) to disengage the movable locking retainer.

5. Claims 1, 2, 6-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are vague, indefinite and incomplete.

Claim 1 is vague, indefinite and incomplete as to what all is meant by and is encompassed by the phrase "one in the forward closure received and movable lock" (it is also unclear as to what the term "one" in said phrase, refers to).

Claim 11 is vague, indefinite, incomplete and misdescriptive in reciting the spring biasing member 6 as engaging the locking member (ball 3). Instead, the spring 6 actually engages ball retainer 2.

Claim 12 incorrectly indicates that the rocket motor has something (e.g. a component) that permits it to disengage the movable locking member.

The claims do not provide proper antecedent basis for all terms present. As an example thereof, note the term "lock retainer" in claim 1 line 5.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 8, 10-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hansche.

The projectile is element 14. The claimed hollow central boss reads on element 34. Element 34 has a radial flange 36 in which the locking balls 42 are positioned (the claimed circumferential groove or recess, reads on such). The lock retainer reads on wall 46 of cup 48 carried by plug 50. Spring 58 biases against the lock retainer in a direction opposite to the direction of travel of the missile.

Note particularly that applicants claims are to an apparatus and that Hansche shows applicants actual claimed apparatus.

As to claim 10, any projectile or warhead will have at least some penetrating capability (claim 10 reads on such).

Applicants claims contain statements as to how and in what manner, applicant desires to operate his apparatus.

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It is well settled case law that such limitations, which are essentially method limitations or statements of intended or desired use, do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ 2d 1525, 1528.

8. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansche in view of either Madderra et al or Forman et al.

The primary reference has been discussed above. The primary reference shows a plurality of balls 42 completely filling the flange 35 (the claimed circumferential groove or recess).

The secondary references show that instead of having to fill the circumferential groove with locking balls, one can accomplish the same objective using a lot less locking balls separated by what can be termed axially projecting retainers (e.g. in Forman et al, see balls 25 separated by axially projecting retainers 20 in Fig. 2 and balls

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30 separated by axially projecting retainers 28 in Fig. 3, and in Madderra et al, note Fig. 7 and col. 2 lines 26+ which refers to balls 38 carried in openings 40 spaced around annular support member 32).

Accordingly, it would have been prima facie obvious to have modified the primary reference by utilizing only a few steel balls separated by axially projecting retainers as this has the obvious advantage of reducing the number of steel balls required to perform the locking function.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansche in view of Crockett.

Claim 9 recites the forward closure of the rocket motor as comprising a polar boss and a forward motor closure that are threaded together with a seal interposed therebetween. These two claimed threaded together elements read on elements 26 and 22 which are threaded together at 24. This threaded connection will be subject to gas pressure from the burning propellant in element 12 (e.g. see the sentence bridging columns 1 and 2).

Crockett shows that when the connection between two elements is subject to gas pressure from a burning propellant, it is advantageous to provide a gasket or seal means therebetween (e.g. see seal 20 in Figs 1 and 2 and col. 2 lines 13-17).

Accordingly, in view of said teachings in Crockett, it would have been prima facie obvious to have modified Hansche and provided a seal at the threaded connection between elements 26 and 22 for the obvious advantage of preventing any escape of generated gases through the threaded connection.

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10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansche in view of SE 508072 (Nilsson) (cited by applicant).

Hansche has been discussed above.

Nilsson shows it is advantageous for the projectile to include a section made from heavy metal so that it can penetrate armour.

Accordingly, it would have been prima facie obvious to provide the projectile of Hansche with a section of heavy metal as in Nilsson for the obvious advantage of also being able to penetrate armour.

11. The other reference cited further illustrate pertinent art.

12. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature of the boss having a circumferential groove, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

13. Due to the small size of the components in the drawings, it is not possible to determine the shapes, relationships, etc., between elements 7, 7', 17, 18, 4, 6, 14, 3, 2,

13. Applicant is required under 37 CFR 1.81 to furnish a drawing(s) clearly illustrating said shapes, relationships, etc., between said elements so as facilitate understanding of the invention. No new matter may be introduced into the required drawing.

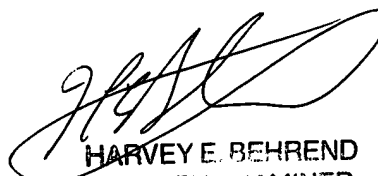
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14. The amendment to page 1 of the specification concerning the related applications must be updated to include application numbers (or patent numbers if such exist).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harvey Behrend whose telephone number is (703) 305-1831. The examiner can normally be reached on Tuesday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.



HARVEY E. BEHREND
PRIMARY EXAMINER

Behrend/vs
January 31, 2004